Part II

The Kennedy Limousine: Dallas 1963

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[*Editor's note*: Douglas Weldon, J.D., a Michigan attorney with extensive experience in the investigation of crime, has focused his attention on the Presidential Lincoln limousine as an access route toward understanding the assassination of JFK. Secret Service agents began washing blood and brains from the limousine even before the President had been pronounced dead and, by Monday, 25 November 1963, even though it was a crime scene on wheels that belonged in the Smithsonian, it had been stripped clean of virtually every remnant of the crime. This study vividly displays the kind of knowledge that can be acquired concerning a complex event through the pursuit of a specific line of inquiry by employing intelligence, perseverence, and discipline.]

For those of us who were alive on 22 November 1963, it remains forever a current event embedded in our memories. I was a 10-year-old boy at the time. That fall day defined the beginning of a turbulent era whose ripples continue to be felt today throughout our government and the nation's psyche. A faith and trust in government was lost that only truth can possibly restore.

The Premise

I have studied the assassination of John Fitzgerald Kennedy since 1978. Like anyone who has engaged in a serious examination of the event, I have experienced a mixture of emotions ranging the full gamut from hope to frustration. There is a basic premise that must be the foundation for anyone who pursues the study of those events from 1963. That premise is that if we are to be a democracy then our history deserves truth. It has been stated that history is the myth that people choose to believe. It is time that the myth about what occurred on 22 November 1963 be removed from the folklore of our history.

Most research on the assassination of John F. Kennedy is not new, but rather is an affirmation and corroboration of findings that many dedicated researchers have addressed over the years. The study of the assassination is best analogized by comparing it to a puzzle. If people are willing to critically examine the evi-

dence that exists today and treat each piece of credible evidence as a piece of a puzzle then we, as a nation, would have enough pieces to see a picture emerge from that puzzle. That picture would conclusively show that John Fitzgerald Kennedy, the 35th President of the United States, died as a result of a conspiracy. That conspiracy continues to cast a cloud over the official response of our government and its apologists.

Martin Luther King, Jr., when asked about his lack of patriotism in criticizing the Vietnam War, once responded that he only criticized those things that he cared about and that he loved his country. He criticized his government because he loved his country and knew what it could be. Our country today collectively shares shame by allowing myths to perpetuate and thrive about the events of 22 November 1963. I, like Martin Luther King, Jr., also criticize my government, because I, too, care about my country.

This account will include excerpts from an interview I conducted in 1993. Candidly, I did not appreciate the significance of the information conveyed to me at the time of the interview. Today, I equate what I then thought was an interesting, small piece of the puzzle of the assassination as comparable to what people thought was a small scrape on the side of the *Titanic*. The information obtained that day, combined with an examination of the totality of the evidence, should cause each one of us to reevaluate our thoughts about what happened to our nation with the death of John Fitzgerald Kennedy.

I have personally interviewed many people with connections to the assassination, including a number of members of the Dallas Police Department who played an important role in the events that day. Many members of the Dallas Police Department of 1963 have been unfairly criticized over the ensuing years. We will never know what kind of investigation they would have conducted because they were deprived of the opportunity to examine much of the evidence.

Though I believe it is possible, and perhaps even probable, that some members of the Dallas police may have cooperated with the falsification of evidence or perhaps in a more sinister fashion, the officers I have spoken with were committed to the service of justice. Unfortunately, some members of another group, who also were sworn to have been committed to the same standards of justice and who also had members of their group in Dallas that day, did not permit the legally proper handling of evidence by the Dallas police. The members of that group worked for the United States Secret Service.

Few people would argue against the position that the most important piece of evidence of the crime in Dallas was the President's body. It is well documented that the body was illegally removed by force from Parkland Hospital by the U.S. Secret Service. However, another piece of evidence was also removed that day. That evidence was second in importance only to the body because at the time, despite efforts to do so, it was evidence that could not be altered at the scene in Dallas. [*Editor's note*: An agent was photographed taking a bucket of water and a sponge to wash blood and brains from the back seat as the limousine sat at Parkland. See, for example, Richard Trask, *Pictures of the Pain* (1994), p. 41.] That evidence was also removed illegally from Parkland Hospital. It was also removed by the Secret Service of the United States. That evidence would perhaps have told a different story from what we later heard as the official explanation from our government. I am, of course, referring to the Presidential limousine. That limousine may yet tell us a story today.

The story of the limousine in the aftermath of the assassination is information that has been chronicled in many speeches, books, and articles. It is time to take a fresh look at credible evidence that should cause everyone to consider the evidence presented by the government about the assassination of John Fitzgerald Kennedy in a different light. Two questions need to be addressed. The first question, What happened to the limousine after the assassination and why? Once that question is answered the second question becomes, Can we now provide a reasonable explanation for the origin of the shot that caused the entrance wound to the throat of the President?

The focus of this paper will concentrate on damage done to the windshield. of the Presidential limousine. It will not explore the questions raised by another hole that was alleged to have been in the floor pan or the damage done to the chrome stripping by the windshield. However, these are issues that merit further attention and provide their own questions to be answered.

Background of the Limousine

It is important to understand aspects of the historical background of the limousine that played such an important role in Dallas. Work began on the ill-fated limousine the day before Kennedy's inauguration. Until it was completed, Kennedy used a 1950 Lincoln "bubble-top," which had been used by President Truman and President Eisenhower. Over 21 feet long, this new vehicle was an elongated version of the 1961 Lincoln Continental convertible. It was a result of four years of planning and discussion with the Secret Service and had more specially designed innovations than any automobile ever used by a President.

These features included various roof combinations and a hydraulically controlled rear seat that could be raised and lowered up to 10 inches. It provided a railing to assist the President in standing upright during a parade. The completed limousine also had another unique feature. That feature has been unknown to the public. That feature was a throttle that, when opened, would allow the limousine to maintain a "parade speed" of 10-12 miles per hour.

A standard Lincoln Continental 430-cubic-inch engine provided the power for the new limousine. When completed, it was 3 feet longer than when it left the Lincoln assembly plant in Wixom, Michigan. The original stock vehicle weighed 5,215 pounds and retailed for sale at a price of $7,347. When the modification was completed, it had entailed expenditures of over $200,000, was 3 feet longer and now weighed over 7,800 pounds. Ford Motor Company technicians designed the vehicle in cooperation with Hess & Eisenhardt, one of the oldest custom car body firms in the United States.

Hess & Eisenhardt was located in Cincinnati, Ohio. (In 1980, Hess & Eisenhardt changed its name to Ogara, Hess & Eisenhardt following the retirement of Willard Hess.) Hess & Eisenhardt began work on modifying the automobile in December 1960 and completed their complicated work to the specifications of the Secret Service and the Ford Motor Company in May 1961. The limousine was then returned to the Ford Motor Company in Michigan and, after some additional mechanical modifications, was delivered to the White House in early June 1961 for use by the new President, John F. Kennedy.

The limousine was dubbed the "X-100" by the Secret Service. It is important to note that the limousine was always the property of the Ford Motor Company,

which entered into an agreement to lease it to the Secret Service for $500.00 a year. The Ford Motor Company leased the vehicle for such a token amount because of the positive publicity that would be generated by the President using the vehicle in parades and other ceremonial events. It is also very important to observe that this leasing arrangement established a close relationship between the Ford Motor Company and the Secret Service.

The Limousine in Dallas, Texas: November 1963 and After

The vehicle was flown into Texas on a C-130 cargo plane one day prior to Kennedy's arrival for the Texas trip. After President Kennedy was pronounced dead at Parkland Hospital and his body was removed by the Secret Service, the limousine was hurriedly taken away and flown back to Washington D.C. [*Editor's note*: As will become apparent, one of the objectives of this study is to establish the precise disposition of the limousine.]

It is critical to understand that in 1963 there was no federal statute that made it a crime to kill the President of the United States. Legally, this was simply a murder that should have been governed by the statutes of the state of Texas. Texas had the sole authority to investigate the crime, to take evidence into its custody, to perform the autopsy on the deceased President, and to pursue any criminal prosecution that might result therefrom.

The FBI and the Secret Service usurped that Texas authority. Reports surfaced that the President's body was taken by the Secret Service with guns drawn and the exercise of force. Most state statutes today would hold the individuals involved in such actions criminally responsible for obstruction of justice. Furthermore, there exists compelling evidence that certain members of those government agencies engaged in the destruction and fabrication of evidence in a capital crime. Under statutes today, conduct of this kind could carry a sanction of long-term incarceration.

Stories about the Limousine

The government's official version of what happened to the limousine after the assassination appears very simple if one conducts a cursory examination. That "story" alleges that the limousine was flown to Washington D.C. on the evening of 22 November 1963. It then remained in the White House Garage under the supervision of the Secret Service until, according to James Rowley, Chief of the Secret Service, it was *driven* to Dearborn, Michigan—approximately 500 miles—on 20 December 1963 to design a new bubble-top. The vehicle was then supposed to have been driven from Dearborn, Michigan to Hess & Eisenhardt in Cincinnati, Ohio, on 24 December 1963, for the manufacture and installation of the new bullet resistant bubble-top. (*See Appendix C.*)

This was the official account James Rowley provided to Mr. J. Lee Rankin, General Counsel to the Warren Commission in a letter dated 6 January 1964, a version of events which has been suspect for many years, even though proofs to the contrary have not previously emerged in any substantive or detailed form. Other reports have suggested different scenarios as to what happened to the limousine after the assassination. It is important to examine some of these dif-

ferent versions of what allegedly happened to the limousine in the aftermath of the assassination. The fact that such numerous and varying stories exist should by itself cause researchers to scrutinize the reasons why there are such varying accounts for what should be an easily documented history.

The House Select Committee on Assassinations (HSCA), during its tenure from 1976 to 1978, became confused about what happened to the limousine in the aftermath of the assassination. In an examination of 11 specific dates regarding the limousine after the assassination beginning with 22 November 1963, the HSCA noted conspicuous discrepancies in testimony about 4 of those dates as it developed its chronology of the movements of the limousine.

An article published in *Car Exchange* (December 1983) reported that the limousine was delivered to Hess & Eisenhardt around the date of 12 December 1963. In addition, however, the HSCA, in referring to the records of Hess & Eisenhardt, also noted that the vehicle was delivered to Hess & Eisenhardt on 13 December 1963. This date was confirmed to me personally by Willard Hess, one of the owners of the company. Notice that both of these dates drastically contradict the information provided by the Chief of the Secret Service to Mr. Rankin in his letter of 6 January 1964.

Further examination of this issue demonstrates that no record exists anywhere, apart from James Rowley's written assertion to Rankin—and a memorandum by F. Vaughn Ferguson, a Ford employee—that the limousine was driven anywhere immediately after the assassination. (See Appendix D.) Not one newspaper article or radio or television report mentioned the limousine being driven hundreds of miles in the harsh winters of Michigan and Ohio.

Common sense dictates that the Secret Service would not have wanted to chance a breakdown, a flat tire, or even the obvious necessity of refueling it by driving the bloody limousine on the highways or back roads of this country with the risk of inclement weather. An examination of the weather reports reveals that the road conditions were quite treacherous during that period of time. The Chief of the Secret Service, James Rowley, apparently was not telling the truth.

Dr. Charles Crenshaw, a physician present at Parkland Hospital in 1963 when the President was brought in, mortally wounded, advanced another version in his book JFK, *Conspiracy of Silence* (1992). He wrote that:

> three days after the assassination, Carl Renas, head of security for the Dearborn Division of the Ford Motor Company, drives the limousine, helicopters hovering overhead, from Washington to Cincinnati. In doing so, he noted several bullet holes, the most notable being the one on the windshield's chrome molding strip, which he said was clearly "a primary strike" and not a fragment." The limousine was driven by Renas to Hess & Eisenhardt, where the chrome molding was replaced. The Secret Service told Renas to "Keep your mouth shut." Renas recalls thinking at the time, "Something is wrong" (1992, p. 106).

Though again there is no record in any form of media that would support this story, Carl Renas, in this interesting account, should certainly be given credit for being perceptive enough to recognize that something was wrong.

Indeed, in his book, *Cover-Up* (1976), author Gary Shaw had previously observed, "Within 48 hours of the shots in Dealey Plaza the Kennedy death car was

shipped to the Ford Motor Company in Detroit and completely destroyed as far as evidence was concerned" (Shaw 1976, p. 59). The late journalist and author Penn Jones, Jr., had documented similar information. And, of course, as F. Vaughn Ferguson's statement conveyed and as the creation of the vehicle itself implied, there was a close connection noted between the Secret Service and the Ford Motor Company.

F. Vaughn Ferguson, a Ford Motor Company employee, has provided one of the most intriguing accounts about the limousine at the White House garage. In a declassified Ford Motor Company interoffice memorandum dated 18 December 1963, Ferguson described the vehicle's presence and work performed on it in the White House Garage from 23 November through 27 November 1963 (Appendix D). His memorandum further implied that he was also there for some days after the 27 November date. He offers specific and sometimes graphic details, such as cleaning blood from the vehicle and actually removing and installing new carpeting.

He subsequently testified that he was the individual that actually drove the limousine to Dearborn, Michigan on 20 December 1963. This story was fairly consistent with what Secret Service Chief James Rowley conveyed to the Warren Commission in his letter to Rankin. However, in one of my interviews with Willard Hess, Hess indicated that this could not have happened and did not happen. Mr. Hess was also shocked that he was only contacted one time by the Warren Commission and only asked a very innocuous question. That contact was the extent of official communications ever made with him by anyone associated with the Warren Commission.

Ferguson's account of his involvement with the limousine also appears to be suspect on other grounds. Two of the four discrepancies noted by the HSCA in relation to its attempted chronology concerned Ferguson's testimony. Indeed, a close examination of the memorandum also reveals some curious findings. Mr. Ferguson described the windshield as he observed it on 23 November 1963 as follows: "Examination of the windshield disclosed no perforation, but substantial cracks radiating a couple of inches from the center of the windshield at a point *directly* (emphasis added) beneath the mirror." I extend an open invitation to anyone to produce a diagram, a report, or a picture showing a crack or other damage at a point directly beneath the mirror. The questions have to be asked: Did Ferguson really see the windshield? Could this be an example of evidence of the cooperation and complicity between the Ford Motor Company and the United States Secret Service to distort the actual record as to what really happened to the limousine upon its return to Washington D.C.?

The White House Garage Logs

The Ferguson memorandum raises other questions. An examination of the White House Garage logs is revealing. Mr. Ferguson's name, for example, does not appear on the logs until 26 November 1963. While this admittedly may not be conclusive of sinister actions, the question must be answered as to what unique status did Ferguson have that it was not required that he be logged in upon his entry to the White House Garage. Did Mr. Ferguson have open access to the White House Garage? It appears that such a procedure of logging in was carefully documented for anyone entering the White House Garage. This documen-

tation would be especially important for 23 November 1963, the date that he first claimed that he examined the vehicle in the White House Garage.

The logs also reveal more critical information. The most significant aspect of the White House Garage logs is the absence of even one person logging in to see the limousine on 25 November 1963. This critical observation becomes of paramount importance when the statement of a witness from the Ford Motor Company, who asserts that he worked on the windshield at Ford on 25 November, is scrutinized. Was the vehicle in the White House Garage on 25 November 1963? Why are there two conflicting stories, with one Ford employee, Carl Renas, alleging that he was driving the car three days after the assassination while another Ford employee, F. Vaughn Ferguson, alleges something totally contradictory?

Ferguson's account is also confusing in light of James Rowley's 6 January 1964 memorandum to Rankin. In that memorandum, Rowley wrote that Secret Service Agent Morgan Geis of the White House Garage detail requested permission to clean the blood from the back seat on 23 November 1963. The reason given was that the odor was bothersome to him. According to Rowley, permission was given to Geis, Special Officer (William) Davis, and White House Police Officer (Andrew) Hutch to remove these bloodstains on late Sunday evening, 24 November 1963 (CD-80). But where was Ferguson at this time? Why did Ferguson document in his memorandum that it was he who cleaned the vehicle? Why did Chief Rowley fail to mention that Ferguson had done anything to clean the limousine? This is another conflict in the record that disturbed the HSCA regarding its chronology of the limousine.

Ferguson's memorandum maintains that the Secret Service cleaned the upholstery on 23 November, not on 24 November, as conveyed by Rowley. Why do Rowley and Ferguson's stories conflict? Ferguson also asserts in his memorandum that the Arlington Glass Company replaced the windshield on the limousine on 25 November 1963. And yet the White House Garage Logs indicate that that was done on 26 November 1963. Was this another error by Ferguson? Why is it that almost every statement in the memorandum contradicts other evidence? Was the 25 November 1963 date used in the memorandum intended to provide a cover for what occurred in Dearborn, Michigan on that same date?

Further Problems with the Evidence

A further review of the evidence is also revealing. Even the Warren Commission in 1964 was again provided with contradictory stories by the Secret Service and the FBI. The confusion they generated was never resolved.

What is clear is that, after the limousine arrived in Washington D.C. on 22 November 1963, the FBI conducted an examination of the vehicle sometime after 1:00 a.m. on 23 November. The FBI team was composed of agents Orrin H. Bartlett, Charles L. Killiam, Cortland Cunningham, Robert A. Frazier, and Walter E. Thomas. The FBI specifically noted in their report of the examination that no bullet holes were found.

Significantly, there were a couple of Secret Service agents who also were part of a report regarding that examination of the windshield. The limousine had departed Parkland Hospital at approximately 2:04 p.m. on 22 November 1963 driven by Secret Service Agent George W. Hickey, Jr. and a Dallas police officer.

It was placed aboard a cargo plane—an Air Force C-130—and flown to Washington. The plane arrived at Andrews Air Force Base at 8:00 p.m. Special Agent Samuel Kinney, accompanied by Agent Charles Taylor, Jr., drove the vehicle under police escort to the White House Garage.

Mr. Taylor would have been in an ideal position to carefully observe any windshield damage. In the report of Secret Service agents Charles Taylor, Jr. and Harry Geiglin, Mr. Taylor, who was present at the same time as the FBI agents , specifically wrote upon observing the windshield that "of particular note was the small hole just left of center from which what appeared to be bullet fragments were removed." Did someone fail to instruct Taylor and Geiglin about what they were to place in their reports? How could Charles Taylor have examined the windshield at the same time as the FBI team and noted startling evidence that is totally opposite to the observations of the FBI team?

Further controversy emerged. A week after the windshield was examined in Washington D. C. on 22 November, the evening of the assassination, a windshield—which might or might not have been the same—was removed from the automobile and stored in the White House garage. Subsequently, in March 1964, at the request of the Warren Commission, the Secret Service would sent a windshield to the FBI laboratory, which determined that it contained no hole but only damage to the outside surface. The inside surface was smooth.

James Rowley, however, in the aforementioned 6 January 1964 letter to the Warren Commission, referred to two other agents who were present when the limousine arrived. It is now believed that the agents he was making reference to were Special Officer William Davis and Special Agent Morgan Geis. It was claimed that they ran their hands over the windshield and the outside surface was "smooth and unbroken." However, neither the report completed by the FBI agents nor Charles Taylor, Jr., makes any mention of these two Secret Service agents! Rowley also omitted in his letter any reference to the hole noted in the report of Charles Taylor, Jr.

Furthermore, Secret Service Agent Roy Kellerman claimed that he examined the windshield on 27 November 1963, allegedly a short time before it was removed from the limousine. Agent Kellerman had been an occupant in the front passenger seat of the Kennedy limousine during the assassination. His examination of the surface of the windshield was consistent with Rowley's assertions about the two other Secret Service agents examination of the windshield (Davis and Geis). Kellerman noted that he ran his hand over the outside of the windshield and found it to be smooth, the opposite of what the later FBI report would show. Kellerman stated that the damage was on the inside surface of the windshield. In Kellerman's mind, such an observation logically indicated a shot from the rear.

Under normal circumstances, such an inference would be correct, had the windshield been constructed with ordinary glass. However, the windshield in the Kennedy limousine on the day of the assassination was made of safety glass. Safety glass responds to an object striking its surface in the opposite way of regular glass. A nontransiting shot at safety glass will leave the outside surface smooth while the inside surface will fragment. Indeed, why would so many individuals run their hands over the windshield, if there clearly was no damage on the outside? If there was damage to the outside, then the obeservations of Agents Kellerman, Geis, and Davis were actually consistent with a shot from the front.

Agent Morgan Geis, on the White House Detail, apparently made the same error after the vehicle had been placed in the White House Garage. According to Jim Bishop, *The Day Kennedy Was Shot* (1968): "When the vehicle was being stored there he [Geis] claimed that he looked across the hood of the car stating, 'Whatever it is, the crack isn't on the outside. This side is smooth'" (Bishop 1968, p. 511)

To further complicate matters, F. Vaughn Ferguson, as noted, wrote in his 18 December 1963 memorandum that personnel from Arlington Glass had removed the windshield from the vehicle on 25 November 1963. His memorandum specifically reports that the windshield was placed in a stockroom under lock and key at the White House Garage. Mr. Ferguson is unequivocal in stating in his memorandum that he had not seen the windshield since 25 November 1963. If this is accurate, however, then how could Agent Roy Kellerman have seen a windshield on 27 November, two days after Ferguson noted that it was placed under lock and key? If Mr. Ferguson's memorandum is accurate in noting that he was at the White House Garage on 27 November and the windshield was locked away, then what windshield did Kellerman see? What was really going on? It is obvious that Ferguson and Kellerman cannot both be right. Who was not telling the truth and why? Is it possible that neither was telling the truth?

When Kellerman testified before the Warren Commission in March 1964, he was asked to run his hand over the *inside* (emphasis added) of the windshield. Incredibly, he then testified to the exact opposite of his original statement, remarking ". . . it feels rather smooth today." This changed statement was now consistent with an object striking the windshield from the rear. Also, it is quite clear that the windshield presented to the Warren Commission did not have any hole going through it (CE-350 and CE-351).

Researcher Robert P. Smith interviewed Bill Ashby, the crew leader of the Arlington Glass Company team. In the interview Mr. Ashby claimed that he removed the windshield from the limousine on 27 November 1963 at the White House Garage. Ashby recalled that the inside surface of the windshield was damaged. What windshield did he remove if Ferguson was correct in noting that the windshield had been already removed and stored on November 25th? And, again, if Mr. Ferguson is credible, why is there no record of anyone, including people from the Arlington Glass Company, coming into the White House garage on that date? Mr. Ashby's story of the Arlington Glass Company is incompatible with Ferguson's memorandum. The White House Garage logs indicate that Ashby came in on November 26, 1963, a date that contradicts both Ferguson and Ashby. How can one make sense of Kellerman's story given all of these contradictions?

Mr. Ferguson also made yet another extremely interesting notation in his memorandum. Coincidentally, just as the FBI agents reported the absence of any holes during their examination, Ferguson made the same observation in his memorandum. Ferguson, for some reason, also made a special effort to note something that he did not see rather than only describe what he did observe. He remarked, "Examination of the windshield disclosed no perforation, but substantial cracks radiating a couple of inches from the center of the windshield at a point directly below the mirror." But there are several problems with Mr. Ferguson's statement. If no perforation existed, why would he even mention such a possibility? In addition, his description of the location of the damage is incon-

sistent with every other witness, reports done by the FBI and by Charles Taylor, Jr., and Commission Exhibits 350 and 351. In fact, there is no record that tends to corroborate such an observation.

There have been rumors for many years that the Secret Service ordered up to twenty-one windshields for the limousine soon after the assassination. Dr. Robert B. Livingston, M.D., for example, then the Scientific Director of the National Institute for Mental Health and of the National Institute for Neurological Diseases and Blindness, had learned that the Secret Service had obtained a dozen windshields from the Ford Motor Company, allegedly for "target practice." [*Editor's note*: Dr. Livingston's personal account may be found in *Assassination Science* (1998), pp. 161–166.] Could this be significant in light of all of these differing stories? Was it necessary to have a number of windshields on hand in an effort to duplicate the approximate damage that was evident in the windshield? It is likely that it would have taken a number of careful efforts to closely duplicate the damage if that was indeed their intent. Indeed, Dr. Livingston has speculated that the number of windshields raises doubt as to whether the windshield in the National Archives was the same windshield on the limousine in Dallas.

Did the Secret Service substitute a windshield with a crack they fabricated and was that the windshield Ashby and Kellerman examined on November 27, 1963? Is that why they describe a windshield with inside damage indicating a shot from the front? Did the Secret Service then realize that safety glass shatters in the opposite direction of regular glass, thus forcing them to again substitute another windshield? Is this why the glass had been described in various ways and why Kellerman's testimony changed? Kellerman could not lie before the Warren Commission about the then-present state of the the windshield, because by that time the Commission members could verify the condition of the then-present glass for themselves.

As an inexplicable irony, William Greer, the driver of the fateful limousine, years and years later, continued to tell some researchers and friends that there had been no damage to the windshield! This is contrary to virtually every piece of evidence that has been proffered by everyone else who was in a position to make observations of its condition.

In an undated letter, but which was apparently mailed in March 1964, J. Lee Rankin, Chief Counsel for the Warren Commission, informed J. Edgar Hoover, Director of the FBI, that the windshield has a "marking which was apparently caused by a hard object hitting the windshield. At this point, the windshield appears to be smooth on both sides." This suggests the possibility that the windshield might have been changed yet again.

There is a picture of the windshield that currently resides in the National Archives in College Park, Maryland, a copy of which appears in the re-release of the Harrison Edward Livingstone's book, *High Treason* (1998). Do those cracks appear to be the same as those recorded in Warren Commission Exhibits 350 and 351? Generally speaking, it would be virtually impossible to exactly duplicate damage to a windshield each time a windshield is changed, which may account for these apparent discrepancies.

Evidence of a Hole in the Windshield

One of the tests of veracity in our legal system when physical evidence is not available or questionable is independent corroboration. Such corroboration exists here. There are many people who witnessed a hole in the limousine windshield on 22 November 1963 at Parkland Hospital. I consider some of these people heroic because considerable pressure was placed upon them to retract their observations. Several of these people, with whom I have talked directly, remain hesitant to this day to discuss their observations and continue to fear for their personal safety.

Richard Dudman, a reporter for *The St. Louis Post Dispatch*, for example, wrote in an article entitled "Commentary of an Eyewitness" that appeared in *The New Republic* (21 December 1963): "A few of us noticed the hole in the windshield when the limousine was standing at the emergency entrance after the President had been carried inside. I could not approach close enough to see which side was the cup-shaped spot that indicates a bullet had pierced the glass from the opposite side." [*Editor's note*: A copy of Dudman's article appears in *Assassination Science* (1998), p. 167.]

Dudman told interviewers that a Secret Service agent shoved him and the other reporters away when he tried to examine the hole to determine the direction from which it had been fired (Mark Lane, Amherst speech, 1964). It is interesting to note that Dudman became aware of no less than five bullets that were fired in Dealey Plaza that day. Dudman was also critical of the lack of security on the top of the triple overpass, noting that the standing Secret Service orders were to keep the overpass clear. That order was violated that day. He also wrote that: "The south end of the viaduct is four short blocks from the office of *The Dallas Morning News*, where Jack Ruby was seen before and after the shooting. . . . No one remembered for sure seeing Ruby between 12:15 and 12:45. The shooting was at 12:30." Mr. Dudman has declined to discuss the assassination with anyone for many years, while his earlier commentary bears mute witness to his present silence.

Former Dallas Police Officer H.R. Freeman, who rode in the motorcade, noted in a 1971 interview by Gil Toff of his observation of the limousine at Parkland Hospital immediately after the shooting, "I was right beside it. I could have touched it. It was a bullet hole. You could tell what it was." And he was not the only police officer—a type of witness usually prized for his accurate and reliable observations—who saw similar damage to the glass.

Dallas Police Officer Stavis Ellis, who was in charge of the motorcade escort through Dallas, remarked, in later interviews to reporters and on radio programs, "You could put a pencil through it." Over extensive interviews with this author, Mr. Ellis was unequivocal about observing the hole. His recollection was that the hole was lower in the windshield, but he is absolutely certain of its existence. He did describe the hole as being on the driver's side of the rearview mirror, which is consistent with other observations and the photographic evidence. He recalls actually placing a pencil in the hole. He recounted that there were numerous people and police officers at Parkland Hospital who viewed the hole. He vividly remembers that while he was observing the hole a Secret Service agent came up to him and tried to persuade him that he was seeing a "fragment" and not a hole.

Mr. Ellis noted: "It wasn't a damn fragment. It was a hole." Mr. Ellis has been totally consistent with this statement over the years and has not wavered in his insistence that he saw a hole in the windshield immediately after the assassination. Ellis, moreover, had a distinguished career with the United States Army and the Dallas Police.

Stavis Ellis also distinctly recalled another incident at Parkland Memorial Hospital that also occurred outside the hospital on that day, which he found disturbing. When a young boy, who had taken photographs along the motorcade route, took pictures of the limousine at Parkland Hospital, a Secret Service agent grabbed the boy's camera and exposed his film by rolling it out of the camera. Dallas Police Officer James W. Courson, another motorcade officer, corroborated this account of the Secret Service agent destroying the film.

It should be observed that the Secret Service destroyed this evidence when the identity of one or more assassins was officially unknown and at a time when it was also uncertain what pictures may have been taken by the boy in Dealey Plaza. The evidentiary value of the pictures was potentially considerable. Both Ellis and Courson were shocked and remember the boy as being extremely upset that he had been treated in such a hostile manner by a member of the President's protective service. Frank Cormier, another reporter for *The St. Louis Post Dispatch*, also observed the hole.

One of the most intriguing witnesses, however, was Dr. Evalea Glanges, then a second year medical student at Southwestern, next to Parkland Hospital. When it was reported in class that the President had been shot, she inferred the President would be taken to Parkland Hospital and went to the outside of the emergency room. By circumstance, she found herself standing next to the limousine. She leaned against the fender and viewed the hole in the windshield. Looking from the outside she noted "It was a real clean hole." A friend, also a physician, was with Dr. Glanges at Parkland Hospital and refuses to speak to this date about the incident. Dr. Glanges did not disclose the name of that person in an interview conducted by this author in January 1999. Apparently there was concern that disclosure might jeopardize her friend's employment or otherwise be hazardous to his health.

Glanges told me that, when she talked about the hole in a loud voice at Parkland, someone got into the vehicle and sped away, "almost taking my arm off." Dr. Glanges was Chairperson of the Department of Surgery at John Peter Smith Hospital in Fort Worth, Texas at the time of the interview. She stated she felt she "needed to keep her mouth shut." She was insistent that the official story was "phony." When I interviewed her, she was anticipating retirement in the near future. She confirmed that she was 100% certain that there was a hole in the windshield in the limousine at Parkland hospital. I am sorry to report that Dr. Glanges was unable to enjoy her retirement. A most credible witness, she died on 27 February 1999, one month after our interview.

In January 1992, an unidentified caller to the *Larry King* television show stated that he had viewed the hole in the windshield. And Chicago Special Agent Abraham W. Bolden Sr., in an interview conducted by researcher Vince Palamara, indicated that he had been aware of the existence of a hole in the windshield. As he then remarked to Mr. Palamara "I heard about that [the hole in the windshield] when I was in the Secret Service...the limousine was parked on the South Lawn of the White House...they did change the windshield."

Interestingly, Michael Paine, husband of Ruth Paine, the woman whom Marina Oswald was residing with at the time of the assassination, indicated that he was aware of a possible hole during his Warren Commission testimony: "Somebody else said there was a shot through the windshield of the car. We went down to the place (Dealey Plaza) and looked around, and he thought that—he had a theory that the man had been shot from a manhole in the street, so I recognized that my views could change with evidence" (2H 423).

As an experienced attorney, I should point out that none of those persons I have identified as having observing the hole knew more than a single one of the others who had made similar observations. This makes their testimony collectively a powerful statement with independent corroboration.

Willard Hess and the Secret Service

I have personally interviewed Willard Hess on numerous occasions. Mr. Hess is a remarkable man at 93 years of age. He continues to give occasional talks about his company. He informed me that he was certain that the limousine had been *flown* (emphasis added) to Dayton, Ohio for delivery to his company. He recalled seeing a windshield and clearly remembers that he did not observe any damage to it. He also remembers allegations of a hole in the floor pan, but that his employees had found no evidence of such a hole.

I inquired as to whether the windshield was changed while in his company's possession. He responded in the affirmative, noting that the Pittsburgh Glass Company was involved. He indicated that this was done in order to install bullet resistant glass. He volunteered to me that this was necessary because the windshield that arrived at his company was *standard safety glass* (emphasis added). This is highly significant in examining the credibility of the man whom I interviewed from the Ford Motor Company. It is also important to recall that Hess & E Eisenhardt's official records show that the limousine arrived at his company on 13 December 1963. This was days before the vehicle left the White House Garage, according to James Rowley and F. Vaughn Ferguson.

Mr. Hess also made another statement that I have found puzzling. He informed me that the Secret Service had told him that the limousine had remained in Dallas for several days after the assassination. This is to be false; and it is difficult to discern the motive for the Secret Service to have provided him such information, unless it was to mislead about the actual whereabouts of the vehicle and to imply that it had not been subject to any previous body work.

Mr. Hess recalled that there was continual contact with the Secret Service and that a man named John Morgan, who was connected to the Secret Service as a technical advisor and in Ohio at least on a weekly basis. He also noted that Mr. Morgan's expertise was in explosives and he thought that Mr. Morgan would assist in preparation for parade routes by examining sewers and drains as a security concern. He ended our conversation one day with the comment that he believes the "full story has not been told."

In one of our conversations, Mr. Hess recalled that the Secret Service informed him that the limousine should maintain a consistent "parade speed" of 10–12 miles per hour. This was important for many reasons. The Secret Service had informed him that studies showed that this speed would make the President a difficult, moving target for a potential assassin. It was a speed that would allow

the President to stand up during a parade but still afford Secret Service agents a reasonable opportunity to run along the side of the President's vehicle when such security was necessary. He has confirmed that the limousine was equipped with a throttle that would maintain the limousine at this specific "parade speed."

On 22 November 1963, there was a very sparse crowd on Elm Street when the President was shot. People were not in the street creating safety hazards that would necessitate that Kennedy's vehicle be driven at a slower speed than 10-12 mph. The lead vehicle in front of the Kennedy limousine was a significant distance from the front of Kennedy's vehicle. Though experts have determined that Kennedy's vehicle had an average speed of 11-12 mph on Elm Street at the time of the assassination, there has not been any disagreement that the vehicle was traveling at varying speeds and slowed down significantly while on Elm Street.

There has been a vigorous debate by researchers as to whether the limousine actually stopped during the shooting sequence. [*Editor's note*: A summary of eyewitness testimony on this point by Vincent Palamara appears elsewhere in this volume.] The brake lights of the limousine were clearly activated. Whether the vehicle came to a complete stop or not, the question remains as to why the vehicle was not traveling at the constant "parade speed" on Elm Street. It was actually the easiest portion of the whole route to comply with the Secret Service's own protocol. I am unaware that this issue has ever been discussed in any investigation of the assassination.

A Witness from the Ford Motor Company

On 15 August 1993, I was able to conduct an interview that answered many of the questions raised by the windshield controversy. Awareness of the existence of this individual came to me purely by circumstance and not through any investigative efforts for which I can take credit. I am not revealing the identity of the individual at this time. A number of trusted researchers have been provided this information with an unedited copy of the full interview between us as a verification of its legitimacy. As I write today, this individual is still living but in poor health.

Having been an attorney since 1978, I have literally seen thousands of people testify in the courtroom. While serving as a hearing official for a number of those years, it has been my duty to weigh the credibility of witnesses. This individual was as credible a witness as I had ever observed in any courtroom. I had promised him that I would not reveal the contents of the interview during his lifetime and I do so now after a successful appeal to his family as to the urgency of the information being provided to the American public.

He had worked for the Ford Motor Company for forty years, starting in 1934. He has never forgotten what occurred on 25 November 1963. The two lab men to whom he makes reference are now deceased. These are some important excerpts from my interview:

> Around noon, we got it around 2:00 that he had been killed. So, right away they called meetings to find out what we were going to do. Are we gonna run Monday morning with the President being killed? We didn't decide on anything at that meeting, and being that I had charge of all power service, I was in charge of getting that plant ready

to run or to shut it down and everything. So, they decided that they would let everything ride and they would call me on Sunday. So, on Sunday, around noon—I had just finished dinner—they called me up and told me to go in and make arrangements to start the plant up. Cause we would have to start that plant up around midnight to get it going for the day shift and number two shift. So, that I did, but then I arrived my normal time on Monday and they had me on a two-way radio and they had me on a Cushman scooter because I was covering a large plant. So I got a call from the Vice President of the division, and he told me on the radio that I was wanted in the glass plant lab, *now*! So I went down to the lab and the door was locked. . . .

I knocked on the door and they let me in. There were two of the lab men in there and they had the windshield there. And they told me that we were to use that to—see now the car was a special built car. We were to use that windshield as a template to make a new windshield. And the windshield had a bullet hole in it, coming from the outside through. You could see it, from the way it was broken. . . .

But the car was in the B building, where we had a repair garage. And they had taken the windshield out, it was back in the glass plant, we were using it as a template. And to make a windshield, and we were told to follow it right straight through until it was a finished product and get it back to the B building. We were told if anybody asked us what we were doing, we were running a template for a prototype. . . .

After describing the process for making a new windshield he noted,

We laminated it, when we took it out of there, it was a finished windshield. We took it to the B building; it was put in that limousine. Now that limousine had the entire interior completely stripped out. . . . The carpeting and everything was gone. . . .

It was gone, it was nothing, it was down to metal, and they restored the whole interior." When asked if the limousine had been "stripped" at the plant, he replied, ". . . I assumed it was there, that's what they did. . . .

Later on that day, I met the Vice President of the division and I said to him, 'Bob', I said, 'do you know what they were doing down there in that lab this morning?' He said, "I don't know what was happening.' He evidently knew, but he didn't want me to know he knew. That's the whole story. . . .

It was a good clean bullet hole, right straight through, from the front. And you can tell, when the bullet hits the windshield, like when you hit a rock or anything, what happens? The back chips out and the front may just have a pinhole in it. . . . This had a clean round hole in the front and fragmented in the back. . . .

I went on from there and I became superintendent of the division and I had the whole five plant divisions.

The following exchange then occurred:

Question: "Do you know what ever happened to the window?"
Answer: "As far as I know it's sitting out in Dearborn, in Greenfield Village."
Question: "The original windshield, with the bullet [hole]?"
Answer: "No, no, [the windshield with the] bullet, we scrapped it. We broke it up and scrapped it."
Question: "Were you told to scrap it?"
Answer: "That's right!"
Question: "Who told you to scrap it?"
Answer: "That was the orders the two lab man had. They got the initial instructions and I was called in after they had got their instructions."
Question: "Do you have any idea who gave them those orders?"
Answer: "I assume that it came from the Vice President of the division, I would assume. . . . All I know is that somebody told me is that we want you down there now! "

He then described how he and his wife went to view the limousine at Greenfield Village in Dearborn, Michigan, years later. He found it covered up and sitting out in a barn. He recounted seeing the car, "So, I stepped over the rope they had around it. I went in and looked at it. My wife said, 'You're going to get in trouble for getting in.' So I went right up to it. The windshield is the windshield we put in there. It's a regular standard laminated window."

This statement may appear puzzling at first impression. Some records indicate that the refurbished vehicle should have had bullet resistant glass in the windshield. But when the final project—called "project D-2" or "quick fix"—involving the glass was complete, it was reported to be a major engineering feat by a company called Pittsburg Plate Glass, at a cost rumored to be $125,000. (This is the change in the windshield described by Willard Hess.) The glass was a very expensive "water white" glass that provided minimum distortion to the onlooker. The result was achieved by constructing the window in the same manner as safety glass except that a polycarbonate vinyl was sandwiched between the plate glass, as Randy Mason has explained, "Three Special Lincolns," *The Herald*, Vol. 11/No .1 (1982). (*The Herald* is a joint publication of the Henry Ford Museum and Greenfield Village.)

There may have been further layers of glass but it is difficult for the casual observer to discern. Willard Hess informed me that one would have to flash a light on the glass in order to tell the difference. It should also be remembered that the witness from the Ford Motor Company only took a quick look at the windshield. The vehicle was not on public display at the time he saw it. Under these circumstances, it is probable that there would not appear to be anything unique about the windshield in comparison to regular safety glass in which vinyl is inserted in the same way between the glass.

I concluded the interview by asking how certain he was that the bullet hole he saw in the windshield came from the front? Was he 100%, 90%, etc.?

Answer: "I worked in the industry for forty years and I've seen all kinds of testing on glass and I know it came from the front."

Question: "So you're 100% certain."
Answer: "I'm 100% positive that it came from the front!"

As I have already affirmed, I found this witness to be completely credible. The question for others, however, may become: Why should anyone else believe this man's recollections? It may therefore be important to enumerate some of the grounds that support his credibility:

(1) He stated that this occurred on 25 November 1963. This was the only date in the White House Garage log that doesn't show anyone checking in to see the limousine.
(2) He does not know, nor has he ever had contact with, anyone I have named as seeing the windshield at Parkland Hospital.
(3) He spoke with me only with great reluctance. His son had to encourage him to speak with me. His wife was very fearful. She can be heard in the background urging him to leave. Her final statement to me was one of utter fear stating, "We have family, you know."
(4) He has never researched or read a book on the assassination. During the interview he made mistakes that would be expected of someone who had never studied the case. He thought the limousine had been flown in from Houston, not Washington D.C. He thought the Ford Motor Company leased the vehicle to the federal government for $1.00 per year. The correct amount was $500.00 per year. If he had studied the assassination he would not have erred on these basic facts. He has never been to Dealey Plaza. He was only certain of what he had personally witnessed. He would have no way of knowing whether his observations would be corroborated by other evidence, especially the discovery that there turns out to be a unique geographical location in Dealey Plaza that would confirm the origin of a shot causing the hole that he observed in the windshield.
(5) It was obvious that he was deeply troubled by what he saw. He was concerned that this information could lead back to him. He must have reflected on what he did that day very much since 1963. He was remarkably clear about his recall. He realized that something was not in order with what occurred that day. He did not try to fill in details about what others did but only made assumptions based upon what he knew at the time.
(6) He does not seek nor has he ever sought any attention or publicity. I had promised not to use the information during his lifetime and do so only now with consent obtained via his son and the urgency that exists in solving this murder.
(7) I verified that he talked about this within his family since 1963. He had two sons. One is now deceased. The other son was a high school student in 1963 who had, purely by coincidence, noticed that I was reading a book on the assassination. He informed me that his father had worked at the Ford Motor Plant in 1963 and was often talking at the dinner table about a personal incident that concerned the assassination.

This information was, until now, never shared outside his immediate family. He wants nothing tangible or intangible for this information. He did not want to name his superior, the Vice President of the division at that time. He was continuing to protect that name during the interview in 1993. I have subsequently

discovered the name through another source. The name of the Vice President that he would not reveal to me was "Bob Miller." Mr. Miller has reportedly retired in Colorado. I do not know if he is still alive.

I believe that the witness from Ford regretted being interviewed. He was very hesitant and appeared apprehensive when he saw that I had a tape recorder. It was only after the urging of his son that he did consent to have our interview on tape. He has resisted any opportunity to talk with me since that time. After a stroke and heart attack subsequent to the interview, his health and memories have probably suffered. It was only by virtue of circumstance that he was in this unique position at the Ford Motor Company in 1963.

(8) The most important verification of the legitimacy of his disclosure is that, at the time the interview occurred, he was unaware that there was any other windshield in existence for the vehicle apart from the one he helped to build on 25 November 1963. He was not aware that Warren Commission exhibits 350 and 351 even existed. He was not aware that a cracked windshield was presented to the Warren Commission. He is not aware to this day that there is a windshield in the National Archives that was purported to be from the limousine at the time Kennedy was killed. When he went to the Henry Ford Museum and Greenfield Village years later, he was satisfied that the flawless windshield he observed was the same windshield he made on 25 November 1963.

The information provided by Willard Hess does not contradict the recollection of this gentleman working at the Ford Motor Company. On the contrary, their two recollections are entirely consistent with each other. The statement from the gentleman at the Ford even explains why Mr. Hess saw an undamaged standard laminated windshield and may also explain why no hole in the floor pan was discovered in Cincinnati.

Further evidence exists that something unusual was happening with the limousine and the windshield. Gary Shaw and Penn Jones, Jr. wrote about the removal of the limousine from Washington D.C. within the first few days (Shaw 1976). It was evident to them that information about the movement of the limousine was being leaked very soon after the assassination. Long time researcher and author Mark Lane gave a speech in Amherst, Massachusetts on 12 March 1964. He stated: ". . .they [the Secret Service] flew the car immediately to Washington where the windshield was removed and the car was then flown to Dearborn where the entire interior was refurbished probably forever destroying a good portion of the physical evidence."

One of the most startling discoveries is a UPI report that was released on Wednesday, 18 December 1963:

> Detroit, Dec. 18. The car in which President Kennedy was assassinated is being refitted with bulletproof glass and armor plate for use by President Johnson. The work on the famous "bubbletop," Presidential Continental is being done at a *Ford Motor Co. Experimental Garage in suburban Dearborn, But Ford officials and the Secret Service declined to comment.* (Emphasis added)

However, sources said, the limousine in which Mr. Kennedy was killed and Texas Gov. John Connally was wounded in Dallas was brought to Dearborn un-

der a cloak of secrecy Saturday night. The article later made two other important observations: "It was learned that the following work is being done: *one*—A new windshield has been installed, lending credence to reports the old one was damaged in the shooting." And, at the conclusion of the article it stated: "New trim and carpeting have been installed in the back seat where Mr. Kennedy was riding when he was shot." This article corroborates exactly what the gentleman from the Ford Motor Company said during our interview, though he described the scenario as occuring in B Building.

The date referred to therefore would have been 14 December 1963. As aforenoted, according to James Rowley, Chief of the Secret Service, which was in charge of the limousine at the White House Garage, the limousine was there until 20 December 1963. Hess & Eisenhardt in Cinncinnati allegedly came into the limousine's possession either 12 or 13 December 1963. The official records of Hess & Eisenhardt presented to the House Select Committee indicate that the vehicle was received by them on 13 December 1963.

It has often been stated that secrets cannot be kept. It is clear that information was leaking out soon after the assassination. The Ferguson memorandum, allegedly written on 18 December 1963, has only recently been released. Was this an effort by the Ford Motor Company in cooperation with the Secret Service to purposely distort the record of what really happened? In reviewing the UPI article, is it merely a coincidence that the garage being described in Dearborn and the work done to the limousine is exactly what the witness I interviewed in 1993 asserted, but that the correct date was not being obtained from their "sources"? Did the government's position become entangled in its own lies and distortions?

Who Was Responsible?

The significance of all of this is overwhelming. First, it reveals a link of complicity between James Rowley, Chief of the Secret Service, and Lyndon Johnson, the new President of the United States, the only two people in the United States with the power and authority to approve of the movement of this vehicle from Washington to Dearborn. It also demonstrates a sinister complicity by the Ford Motor Company in cooperating with the deception and criminal destruction of evidence. Further evidence of complicity between Johnson and the Secret Service of which I am aware will have to be addressed at another time. (But it is curious to note that Rowley was the first person to shake Johnson's hand as Johnson arrived at Andrews Air Force Base on the evening of the assassination.) I would, however, like to explore yet another dimension of the implications of this information.

The available evidence suggests that it was the second shot that caused the hole in the windshield. Motorcade officer James Chaney, in an interview on 22 November 1963 told a reporter that the second shot hit Kennedy in the face. Dallas Motorcade Officer Stavis Ellis saw what he believed to be a shot hit the ground shortly after the Elm Street turn. He has diagrammed for me exactly where he viewed this. He was on a motorcycle approximately 100 to 125 feet in front of the Kennedy limousine. He discussed this with Officer James Chaney after the assassination. He had noticed debris from the ground kick up consistent with the impact of a shot. The location was across the depository on the south side of Elm Street. Later, FBI agents investigating the crime for the War-

ren Commission told him that he could not have seen such an effect. He nevertheless restated his observations for HSCA investigators (12H23, JFK Document No. 013841).

Royce G. Skelton, a private citizen, noted in his statement: "I saw a bullet, or I guess it was a bullet—I take it for granted that it was—hit in the left front of the President's car on the cement, and when it did, the smoke carried with it—away from the building" (6H238).

People have argued that such an early shot would not have occurred because of the barrier caused by a tree would have obstructed the view from the 6th floor of the depository for any shooter aiming at the President. It appears possible that this shot described by Stavis Ellis could have happened before the tree became an obstruction. [*Editor's note*: But of course this presumes that the shot was fired from the 6th floor.] If the major purpose of the shot was to create a diversion that would draw the attention of spectators, however, it did not matter where the shot hit or if a tree was in the way.

Any person present in Dealey Plaza would have had his attention drawn to the nearest sound. It is of interest that some of the witnesses believed that the first shot sounded like a firecracker. Some thought the firecracker sound appeared to be in the limousine itself. In a personal interview, for example, witness Bill Newman reported that the firecracker sound appeared to be "by the limousine." One phenomenon that certainly could have sounded like a firecracker in the vicinity of the limousine would have been a bullet hitting the windshield. Mr. Newman is one of many witnesses who further maintains to this date the belief that the limousine came to a stop or near stop during the shooting on Elm Street.

If the witness from Ford is to have credibility, it is important to discern a location from where the shot to the windshield would have originated. The best evidence of damage to the windshield is seen in the famous James Altgens photograph that has been shown to correspond to Zapruder frame number 255. There appears to be clear evidence of a crack and hole in the windshield. However, at least two other versions of that photograph exist, which depict the area of damage in the windshield in a different manner. One photograph portrays the dot—corresponding to descriptions of the hole, in the center of the nebulae— as a diagonal line instead of a dot. A photograph published in newspapers on 23 November 1963 has the portion of the windshield that showed the defect removed altogether. It is not too difficult to imagine that these photographs were tampered with in the exact location of the windshield because they displayed evidence of a bullet hole.

Looking at the area in the Altgens photograph that the witness from Ford described, evidence of the hole can be discerned in the area corresponding to Kennedy's left ear. [*Editor's note*: The presence of this indication in the Altgens photograph was discovered by Roy Schaeffer of Dayton, Ohio, as *Assassination Science* (1998), pp. 143–144, explains.]

There is only one location in Dealey Plaza from which someone shooting at the President could have been in a concealed location, fired a rifle, and caused damage to this area of the windshield by the time the Altgens photograph was taken. This is a crucial question to which I shall shortly return. As we shall see, there is simply no other place from which the damage described by the Ford witness could have originated.

The Altgens photograph. Circle 1. The apparent through-and-through hole in the windshield. Circle 2. An alleged Oswald look-alike. Circle 3. A probable assassin's location. Circle 4. The door of the Vice President's Secret Service vehicle is already open.

The Throat Wound: Entrance or Exit?

First, it is critical to weigh the possibility that Kennedy had suffered an entry wound to the throat at the time of the Altgens photograph. At the time of the Altgens photograph, it is obvious that Kennedy's arms are both lifted towards his throat. Not surprisingly, the initial observations made by the physicians and medical personnel at Parkland Hospital are very important in determining this issue.

The evidence that the wound to the throat of President Kennedy was in fact a wound of entrance is powerful. Dr. Malcom Perry, who performed the tracheotomy on the President, referred to the wound as "an entrance wound" on several occasions on 22 November 1963. *Life Magazine* quoted him as stating that, if the shots had come from behind, as officials were then claiming, then, in his opinion, Kennedy must have turned around and waved at the crowd in order to have exposed his throat to the shooter's nest. The transcript of a press conference at Parkland Hospital that very afternoon is completely unambiguous.

Question: Where was the entrance wound?
Dr. Perry: There was an entrance wound in the neck, in regards to the one in the head, I cannot say.
Question: Which way was the bullet coming on the neck wound? At him?
Dr. Perry: It appeared to be coming at him. . . . [and subsequently]
Dr. Perry: The wound appeared to be an entrance wound in the front of the throat; yes, that is correct.

[*Editor's note*: The complete transcript of the Parkland press conference has been published in *Assassination Science* (1998), pp. 419–427.]

In 1979, Dr. Charles Baxter described the wound as an entry wound and during a 1992 interview stated, "Looking at the hole, one would have to [think]—and my immediate thought was that this was an entry wound because it was so small. The hole was only the size of a pencil eraser, about 2 or 2.5 mm across. . ." (Harrison Livingstone, *Killing the Truth* (1993), p. 718).

Dr. Robert McClelland noted that the throat wound "had the appearance of the usual entrance wound of a bullet" (6H36-37). Dr. Charles Carrico from Parkland Hospital confirmed that the wound was "a small penetrating wound" (CE-392). Dr. Gene Akin testified: "...this must have been an entrance wound. . ." (6H65,67). During an interview with Harrison Livingstone, nurse Diana Bowron replied, "Well, that looked like an entry wound" (Livingstone 1993, p. 718).

There is much more evidence on this point. Dr. Perry reevaluated his statement only after pressure from the Secret Service. Dr. Perry later testified that the wound would have been one of exit, if it had occurred as a Warren Commission staff attorney, Arlen Specter, asked him to take for granted, namely: that the bullet entered the base of the back of his neck, passed through the neck without hitting any bony structures, and exited his throat.

Other sophisticated research by such people as researcher Milicent Cranor also provides persuasive evidence that the wound to the throat was one of entry. [*Editor's note*: This point is discussed in *Assassination Science* (1998), p. 58, for example.]

It is very evident from the Altgens photograph and the Abraham Zapruder film that Kennedy appears to be clutching his throat. There is apparent damage to the windshield and, as *Assassination Science* (1998, p. 143), has explained, there is strong evidence of a hole. Coincidentally, the location of this hole is in the identical location that the witness from the Ford Motor Plant described. Because the only physical reaction from President Kennedy is the motion of raising his arms to the area of his throat, it is obvious that this had to be the result of one of the first shots.

If one can accept the persuasive evidence of the hole in the windshield and believes that the witness from the Ford Motor Company is credible in describing the bullet hole as striking from the front, then one further—reasonably, if not completely self-evident—assumption should be made. That assumption is that any shooter causing that damage to the windshield was attempting to strike President Kennedy.

Again, as remarked, one can observe in the Altgens photograph that there is damage to the windshield and that the President is clutching his hands towards his throat. The logical question then becomes: Is there a location in Dealey Plaza that could account for the origin of such a shot? With the patently justified assumption that the shooter was trying to hit the President, that question can be answered in the affirmative.

The Origin of the Shot through the Windshield

From a careful study of Dealey Plaza, there is only one area that can account for such a shot. There is one location that logically works to perfection to the exclusion of any other location. Because of the limousine disappearing momentarily behind the Stemmons Freeway sign, it can be discerned that the shot to the windshield occurred in the time frame equivalent to that depicted between Z-frames 185–235. [*Editor's note*: Frames of the Zapruder film are referred to as "Z-frames" by their number (out of 486 frames in total).]

It is not necessary to debate Zapruder film alteration to conservatively determine the locations on Elm Street where the limousine had to have been. The location from which the shot had to have originated was from the south side of the underpass near the top of the Stemmons Freeway. The exact location could vary depending on precisely where the limousine was on Elm Street. This, however, is the only location that could work and that does work perfectly.

The highest standard of proof in the American system of justice is "beyond a reasonable doubt." [*Editor's note*: This phrase implies the conclusion that no alternative explanation of the evidence is reasonable.] In some states the term equates to moral certainty. Neither a shot from this area, the hole in the windshield, an entrance wound to the throat of the President, or the location of the limousine when the President reaches for his throat can work independently without these several variables being systematically coordinated.

Though it is conclusive that if the hole entered the front of the windshield with the intent to shoot Kennedy it must have originated from the south side of the underpass, it would be important to determine whether there is corroboration for such a shot. Such corroboration would certainly enhance the validity of such a conclusion. An extensive review of the literature on the assassination does yield some specific positive results.

(a) There was early speculation about a shot from the south grassy knoll area. Witnesses described a sidewalk scar on the sidewalk on the north side of Elm Street. A local newsman, who called it a bullet mark, pointed it out to them. This story allegedly was broadcast on the 6 o'clock news on the evening of 22 November 1963.

(b) When the Warren Commission report failed to mention the sidewalk scar, Eugene Aldredge, a private citizen, discussed the matter with Chas Freund, a reporter for *The Dallas Morning News*. Both men thought the scar on the sidewalk was the result of a bullet. Mr. Aldredge, who did not want to become involved with the matter, reported it to the FBI. The FBI came out two days later and scraped some material from the sidewalk for analysis, apparently to appease public relations concerns.

(c) The House Select Committee also failed to address evidence of a shot from the south knoll area including a close examination of the photograph of that area taken within one minute of the shooting by UPI photographer Frank Cancellare.

(d) Moreover, Dr. Robert McClelland, Dr. Marion Jenkins, and Dr. Adolph Giesecke testified to seeing a wound of the left temporal region of President Kennedy. [*Editor's note*: Studies of the medical evidence by Gary Aguilar, M.D., and David W. Mantik, M.D., Ph.D., may be found elsewhere in this volume.]

(e) Photographers James Altgens and Norman Similas likewise claimed there was a left-sided head wound. Researcher Edgar F. Tatro has discussed this issue extensively. (See *The Quincy Sun*, 11/21/84, pp. 1—17.)

(f) Researcher Milicent Cranor has advised me that she spoke with a gentleman in 1991 who pointed to the area of the south underpass and he had told her that he had heard a shot come from that location. He identified himself by the name of Johnny Brown.

(g) Another individual provides further support of a shooter from the south side of the underpass. His name is Tosh Plumlee. He has disclosed to several researchers that he was a CIA pilot and was in Dealey Plaza on the day of the assassination to abort an assassination attempt on the President. He claimed that he was standing on the south knoll during the assassination. After the assassination, he went to the top of the south overpass area. He and another individual with him distinctly smelled the odor of gunpowder.

What makes this latter recollection so significant is that this information was revealed prior to any release of the interview of the witness from the Ford Motor Company or other factors that would point to a shooter from that area. I was provided this information in December 1998. I am confident that this individual could not have been aware of the other facts I have presented. There is also photographic evidence in one of the Cancellare photographs of what appears to be a person holding a rifle standing in the area where the aforementioned individual claimed to have gone soon after the time of the assassination.

(h) Finally, in Penn Jones, Jr's *Forgive My Grief IV* (1974) there is further striking corroboration:

attention would be focused on the President." Obviously, if anyone had occupied such a position in the front seat, a shot at Kennedy through the windshield would have been an impossibility.

(ii) It is well chronicled that after the initial shots rang out that the driver of the limousine, Secret Service Agent William Greer, at a minimum, decelerated the vehicle, though many witnesses stated that the vehicle actually stopped. [*Editor's note*: A summary of eyewitness testimony on this point by Vincent Palamara appears elsewhere in this volume.] Certainly, the vehicle did not move at a consistent "parade speed."

(iii) There were no Secret Service agents on the Kennedy limousine. This was attributed to Kennedy's orders, even though there appears not to be any support for such a conclusion. Indeed, earlier in the motorcade Agent Clint Hill rode on the bumper of Kennedy's vehicle. In fact, he even did so on Main Street, a brief interval before the assassination.

(iv) The overpasses had been cleared except for Dealey Plaza. No precautions had been taken by the Secret Service for the open windows in buildings. No action was taken nor a report filed on the man standing with an open umbrella in Dealey Plaza on a sunny day. Not one agent mentioned this incident in their reports of that day.

(v) Dallas Police Chief Jesse Curry noted that security was relatively light in the area of Elm Street. He made some revealing statements to the Warren Commission:

Curry: In the planning of this motorcade, we had more motorcycles lined up to be with the President's car, but the Secret Service didn't want that many.

Question: Did they tell you why?

Curry: We actually had two on each side but we wanted four on each side and they asked us to drop out some of them and back down the motorcade, along the motorcade, which we did (4H171).

(vi) Secret Service Agent Emory Roberts was in command of the agents in the follow-up car to the Kennedy vehicle. He ordered the agents not to move after the sound of the first shot. Agent John Ready had even begun to move towards Kennedy and was called back by Roberts. It was Agent Roberts who appeared to take command of the situation at Parkland Hospital, exercising an authority he did not possess.

(vii) Billy Joe Martin, another motorcade officer, reported that the four motorcycle officers covering the Presidential limousine were ordered that under no circumstances were they to leave their positions "regardless of what happened." Martin explained to the Warren Commission that the Secret Service told them that they didn't want anyone riding past the President's car and that they were to ride to the rear (6H293). Martin allegedly told his girlfriend, Jean Hill: "Johnson's Secret Service people came over to the motorcycle cops and gave us a bunch of instructions. . . . They also ordered us into the damndest escort formation I've ever seen. Ordinarily, you bracket the car with four motorcycles, one on each fender. But this time, they told the four of us assigned to the President's car there'd be no forward escorts. We were to stay well in back and not let ourselves get ahead of the car's rear wheels under any circumstances.

I'd never heard of a formation like that, much less ridden in one, but they said they wanted the crowds to get an unrestricted view of the President. Well, I guess somebody got an 'unrestricted' view of him, all right."

Conclusions

These are only a few of many suspicious examples of the conduct of the Secret Service that day. If people are willing to be objective and find only one witness that I have presented to be credible, then there is powerful evidence that a shooter fired a shot through the windshield of the Kennedy limousine from the south side of the underpass. The likely result is that this shot caused an entrance wound to Kennedy's throat. The security that existed in Dealey Plaza was the responsibility of the United States Secret Service. Their actions, of which only a few have been chronicled, can only lead to the conclusion that certain members of that group participated in the killing of President Kennedy and/or the cover-up. [*Editor's note*: Studies of the conduct of key members of the Secret Service by Vincent Palamara may be found elsewhere in this volume.]

It is clear that not one observation by any witness, evidence of the hole in the windshield, or statements of people who saw a shooter on the south underpass are consistant with any other explanation. The available evidence passes the tests of independent corroboration, geographical limitations and necessity, and time constraints. It is also supported by the photographic evidence. [*Editor's note*: It thus appears to satisfy the conditions for an inference to the best explanation, as *Assassination Science* (1998), p. 210 and pp. 345–348, define them.] And it can be demonstrated beyond any reasonable doubt that, unlike the windshield, there is evidence that was not destroyed. That evidence remains alive in testimony, independent corroboration, photographic evidence, and Dealey Plaza itself.

The final question is to ascertain the difficulty of the shot. It is conceded that only certain ammunition could result in the clean hole to the windshield and cause the wound to Kennedy's throat. One expert wrote me that the throat wound was too small to have been made by a 6.5mm projectile. The wound appears to be more consistent with 5–6mm caliber ammunition. There were many highly accurate cartridges in 1963 that could perform accurately from the distance of the south underpass. He further noted that for a bullet to penetrate automobile safety glass and inflict a uniform wound, it would have to have been a non-frangible or full metal-jacketed projectile. [*Editor's note*: This issue is addressed by David W. Mantik, M.D., Ph.D., in his study of the medical evidence elsewhere in this volume.]

I further consulted with a number of experts about the feasibility of a shot originating from the south side of the underpass. All responded that it was not a difficult shot for a world-class sniper. One such expert is John Ritchson, formerly of the U.S. Army and now a gunsmith and ballistics expert. Though the actual distance from the south side of the underpass to the furthest distance the shot could have struck Kennedy would not have exceeded 225 yards, my inquiry was of a conservative nature. I was also concerned that a sniper might have possibly used a silencer from such a location to further minimize being detected. (It is known that silencers were available in 1963 that could have been utilized.)

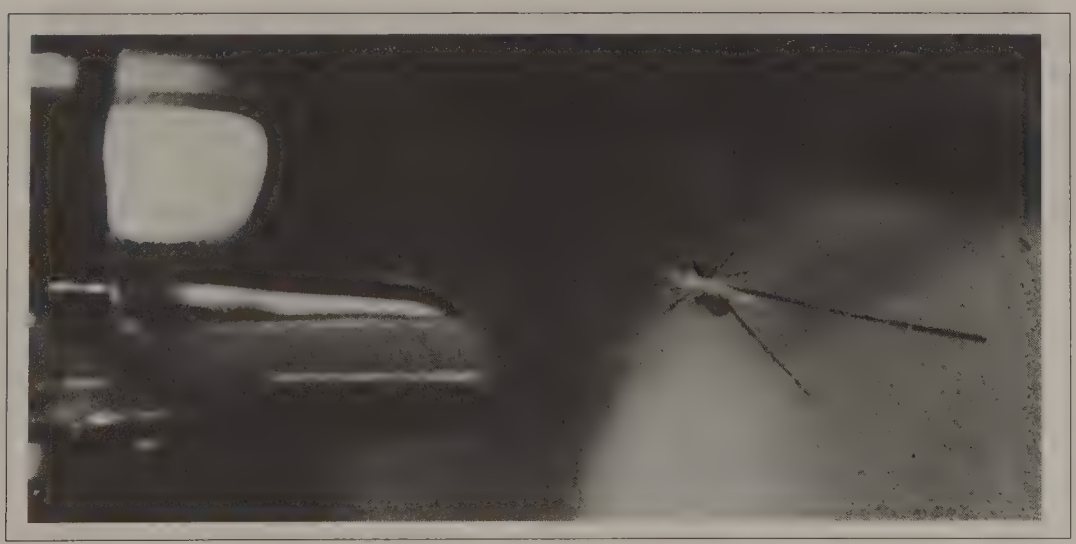
When I inquired about the accuracy of a shot from 300 yards and the possible effect of a silencer on a rifle Mr. Ritchson replied:

> A world class shooter could easily shoot one inch groupings at the range you specify. A sniper will always maximize the range out to 1000 yards, and some even beyond in order to minimize detection and location. A silencer will not adversely affect accuracy and, while it will not muffle the crack of a supersonic bullet, it will, however, silence the muzzle crack, confusing people as to the location of the shooter.

That helped to explain what popular opinion might not understand, namely: that shooting from a distance can be considered to be an advantage under certain types of conditions.

The conclusions that I have been forced to reach in light of compelling evidence are not only disturbing but leave me with both emptiness and sadness. I was 10 years old on 22 November 1963. Over one-half of the people alive in the United States today had yet to be born on that date. People ask: What difference does it make what happened over thirty-five years ago? And that is a legitimate question. For any American who was alive on that day, it will always remain a current event. It is a date forever frozen in our memories. As a 10-year-old boy I saw the world as frightening but full of promise. John F. Kennedy was the President of the United States. It meant something in a way that it never has since.

People have become very cynical about our leaders. Whether Kennedy was liked or not, or was good or bad, something changed that day. A faith and trust in government was lost that can only be cleansed by the truth. History deserves that truth. Those alive now as well as future generations also deserve that truth. I hope that everyone can recapture the promise that we should have. Walter Lippman once asked the rhetorical question as to why old men plant trees that they will never see grow. The answer is obvious. To survive as a people we must be concerned for our children, our grandchildren, and beyond. People need to remember the promise that they once had. History not only deserves truth, *it demands truth*. Only when that happens can we truly be a nation of, by, and for the people.



Windshield produced by the Secret Service the week after the assassination
[Editor's note: *See Robert Groden,* The Killing of a President *(1993), p. 36.*]

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Report Format: $OBJECT

ID: 78.4.1 Other Num:VIN.1Y86H405950
Object(s):Lincoln Automobile; X-100; Presidential Lincoln Limousine
Maker/Loc: Ford Motor Co.
Date: 1961
Descr.: Steel; MN.74.A
Subject: John F. Kennedy
Used: John F. Kennedy
Photo: B.90245
Remarks: VIN. 1Y86H405950-revised 4 door convertible sedan. Model 74A. OHV, V8, 430 C.I.D., approx. 350 B.H.P., twin range turbo drive automatic transmission. Black exterior. Color: medium blue and dark blue leather interior. Has heavy duty transmission, suspension, steering, brakes, axle and tires to accommodate added weight. Steps and grab handles provided sides and rear for secret service guards. Original cost $195,000. Total cost after rebuilt $1,029,600.00. Actual mileage 55,332.

Modified by the addition of armor plate, bullet proof glass and bullet resistant transparent top after the Kennedy assassination in Nov.1963. Front license plate 1776 Bicentennial 1976/227-100/Washington D.C. Assigned code number X-100 by the Secret Service. DIMENSIONS: OAL: 21'; WB: 156"; H. 61"; W:80" add 12" for steps; Wgt.: 9800 lbs(orig. wgt. 5157 lbs.).

Roll.Shot	Video
331.13	01.31714

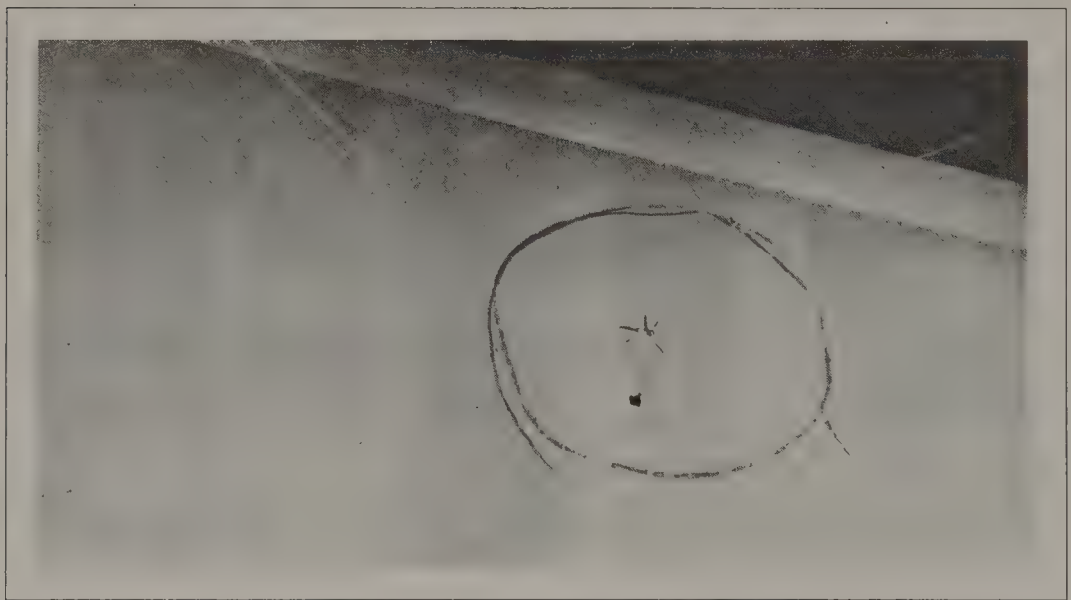
Cond	Dim	
EX	Length	21.00000 ft
	Wheelbase	156.00000 in
	Height	5.08330 ft
	Width	6.66670 ft
	Weight	9800.0000 lb

22.4 ft wms

5'9"

Henry Ford Museum & Greenfield Village

Ford Motor Company internal document concerning the limousine



HSCA Exhibit 351 is one of the substitute windshields, which not only appears to be inconsistent with the Altgens photograph but also with the windshield originally produced by the Secret Service.